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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,399	09/10/2003	Gilbert Gugler	ICH 299-US	5850

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EXAMINER	
BAREFORD, KATHERINE A	

ART UNIT	PAPER NUMBER
1762	

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/660,399	GUGLER ET AL.	
	Examiner	Art Unit	
	Katherine A. Bareford	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,9,11-14 and 16-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Claims 6-8, 10 and 15 are canceled

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 November 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The amendment filed November 25, 2005 has been received and entered.

As a result, claims 1-5, 9, 11-14 and 16-18 are present for consideration. Claims 6-8, 10 and 15 have been canceled.

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

The indication of allowable subject matter in claim 7 (now in claims 1 and 5) and claims 9 and 11 ~~are~~ is withdrawn in view of the newly discovered reference(s) to DE 101 17 668 A1. Rejections based on the newly cited reference(s) follow.

Drawings

1. The replacement drawings of Figure 3 were received on Nov. 25, 2005. These drawings are objected to.

(1) Figure 3 has been provided with an expanded view of the "channels", whereby dimensions are indicated as to width of "10 + 1000y" and as to depth of "1 + 500y". However, there is no support in the disclosure as originally filed for these dimensions. Therefore, Figure 3 now contains new matter.

2. In the November 25, 2005 amendment, applicant argues that the dimensions of the grooves illustrated in Figure 3 are fully supported by the specifiaton at page 3, lines 32-34, which states that "The distance between the channels is from 10 µm to 1000 µm, in particular from 100 µm to 250 µm. The depth of the channels is from 1 µm to 500 µm, in particular from 30 µm to 100 µm."

The Examiner has reviewed this argument, however, the rejection is maintained. The term "10 + 1000y" is not supported by a taught range of "10 µm to 1000 µm". "y" is a unknown variable and the range would be 10-1000 microns, not 10+1000. The term "1 + 500y" is not supported by the taught range of "1 µm to 500 µm". "y" is an unknown variable, and the range would be 1-500 microns, not 1+500.

3. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because Figure 3 as presently provided (see paragraphs above) contains new matter. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Claim Objections

4. Claim 1 is objected to because of the following informalities: claim 1, line 2, "on a curtain" should be "in a curtain" as the solution is part of the curtain.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 5, "the lateral guides" lack antecedent basis. The term should be "lateral guides.

The other dependent claims do not cure the defects of the claims from which they depend.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the

various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 5, 9, 11, 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/049870 (hereinafter '870) in view of DE 101 17 668 (hereinafter '668) (the Examiner has used Metzger, US 2005/0126479 as the translation of this document, as it is the US filing of DE 101 17 668).

The Examiner notes that the effective filing date of '870 for the purposes of this examination is Dec. 13, 2001, as '870 is an international application filed under the treating defined in section 351(a) as it is filed after Nov. 29, 2000; designates the US; and was published in English (international filing date Dec. 12, 2002). Furthermore, priority extends back to the priority date of Dec. 13, 2001, as the material used is in the provisional US application.

'870 teaches a method of curtain coating a moving web with at least one coating solution. Figure 1 and page 14. Lateral, or edge, guides are provided on the edges of the curtain. Figures 2-6 and pages 14-15. A lateral auxiliary flow of liquid is supplied in a groove in the edge guides. Figures 2-6 and pages 20-21 (the "contact area 30" bound by protrusions 36 corresponds to the claimed "groove"). The groove is perpendicular to

the lateral extension of the curtain. Figures 1-6. The edge guides have lower ends. Figures 2-3 and page 20. The edge guide system stabilizes the curtain on both sides. Page 20. The lower end has a downward protruding edge as claimed, since by original claim 8 (and page 4 of the specification), α can be 90 degrees and by original claim 10 (and page 4 of the specification), β can be 90 degrees, providing that a lower end of rectangular shape can be used. Figures 2-3 and page 20.

Claim 5: exit slits are provided above the edge guides to supply the lateral flow of liquid perpendicular to the lateral extension of the groove. Page 19-20. The edge guides have a lower end. Figures 2-3 and page 20. The lower end has a downward protruding edge as claimed, since by original claim 8, α can be 90 degrees and by original claim 10, β can be 90 degrees, providing that a lower end of rectangular shape can be used. Figures 2-3 and page 20. The width of the groove can be 10 mm. Page 20.

Claim 15: the groove has channels arranged in the direction of the falling curtain. Figures 2-6 and page 20 (the "grooves" provide "channels" as claimed).

Claim 16: the channels can have a rectangular profile. Figure 5 and page 16 (as the surfaces forming the grooves can be inclined to each other at an angle of 90 degrees).

'870 teaches all the features except (1) the width of the groove (claim 5) of 6 mm to 8 mm (3) the depth of channels as claimed (claims 17-18).

'668 teaches a method and device for curtain coating a moving web. Figures 1-2 and paragraphs [0001], [0011] of Metzger. A curtain is provided with two lateral guides

for the curtain. Figures 1-2 and paragraphs [0013] – [0015] (guide element 2 and attached aspirating element 6) of Metzger. Exit slits are provided above the lateral guides to supply a lateral flow liquid perpendicular to the lateral extension of the curtain in a groove in the flow direction of the curtain. Figures 1-2 and paragraphs [0013] (hole 4) (of Metzger) and note the groove shown in bar 2 and element 6 in figures 1-2. A lower end of the guides have a downward protruding edge whose side facing the curtain forms an angle β with a horizontal line facing the web. Figure 1 and paragraph [0015] (element 6) of Metzger. The two sides of the downwards protruding edge include an angle α. Figure 1 and paragraph [0015] (element 6) of Metzger. The width of the groove is from 5 to 12 mm. Figures 1-2 and paragraph [0015] (note the width of groove 9, which as shown in figure 2 is the same width as the groove in the bar) of Metzger

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify '870 optimize the groove width in the range between 5 and 12 mm as suggested by '668, which would provide a width between 6 and 8 mm, because '870 teaches using an edge guide system with grooves to apply liquid to a moving web by curtain coating, and '668 teaches that when using a edge guide system to apply liquid to a moving web by curtain coating width of a groove through which lateral liquid flows can be 5-12 mm. It would further have been obvious to perform routine experimentation to optimize the angle α, given the angle shown by figure 1 of '668. It would further have been obvious to perform routine experimentation to

optimize the distance between channels and the depth of the channels, given an optimal channel distance and angle.

10. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

The Examiner notes that the publication date of DE 101 17 668 is October 10, 2002.

11. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over '870 in view of '668 as applied to claims 5, 9, 11 and 16-18 above, and further in view of EP 1 023 949 A1 (hereinafter '949).

'870 in view of '668 teaches all the features of these claims except (1) coating all liquid on the moving web without separating before application (claims 1, 2), (2) the height of the guides (claims 3, 4).

'949 indicates that when performing a curtain coating of a moving web with at least one coating solution, it is desirable to use edge guides. Abstract and figure 4. When using the edge guides, all materials (coating and edge liquids) can be applied onto the web without separating before contact. Figure 4 and abstract. Then the auxiliary liquid can be removed, after application onto the web. Figure 4 and Paragraph [0032].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify '870 in view of '668 to use the edge guide system to apply all liquid on the moving web without separating before application as suggested by '949 in order to provide a desirable coating, because '870 in view of '668 teaches using an edge guide system with grooves to apply liquid to a moving web by curtain coating, and '949 teaches that when using a edge guide system to apply liquid to a moving web by curtain coating, a desirable coating can be applied by applying coating and edge liquids all to the web and then remove edge liquids after application. It would further have been obvious to perform routine experimentation to optimize the distance between the web and the end edge guides so as to minimize the distance so as to keep the curtain uniformity provided by the edge guides, but not damage the web or applied coating. The Examiner notes that as to claims 1-4, that '668 teaches aspirating liquid at the edges of the curtain, however, '668 also teaches edge guides in a similar width range to '870 and shows a conventional width of groove to be used for an edge guide, whether or not aspiration is to be used.

12. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over '870 in view of '668 as applied to claims 5, 9, 11 and 16-18 above, and further in view of Oki et al (US 6454858).

'870 in view of '668 teaches all the features of these claims except the undersurface material of PTFE (polytetrafluoroethylene or TEFLON).

However, Oki teaches that it is known to make edge guides for curtain coating from PTFE. Figure 1, column 2, lines 30-55, and column 13, lines 45-50. Oki also teaches that it is known to make edge guides of such materials as polyvinyl chloride or steel, and to make connecting width regulating plates from PTFE. Column 14, lines 40-45.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify '870 in view of '668 to use the edge guide system of with at least a backing PTFE/TEFLON in order to provide a desirable coating, because '870 in view of '668 teaches using an edge guide system with grooves to apply liquid to a moving web by curtain coating, and Oki teaches that when using a edge guide system to apply liquid to a moving web by curtain coating, it is desirable to provide the area next to the edge guide contacting the liquid (the width regulating plate) from PTFE when then edge guide is a material such as PVC. As a result, it would have been obvious to make the backing of the edge guide of PTFE so that only the face of the edge guide is the non-PTFE material.

Response to Arguments

13. Applicant's arguments with respect to claims 1-5, 9, 11-14 and 16-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine A. Bareford whose telephone number is (571) 272-1413. The examiner can normally be reached on M-F(6:00-3:30) with the First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and for After Final communications.

Other inquiries can be directed to the Tech Center 1700 telephone number at (571) 272-1700.

Furthermore, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KATHERINE BAREFORD
PRIMARY EXAMINER